



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Ionel D. Jitaru :  
Serial No.: 10/509,983 : Examiner: Riley, Shawn  
Filing Date: 21 April 2005 : Art Unit: 2838  
Int'l Application No. PCFT/CH03/00203 :  
Int'l Filing Date: 28 March 2003

Title: **METHOD AND APPARATUS FOR CONTROLLING A  
SYNCHRONOUS RECTIFIER**

**PETITION TO THE DIRECTOR  
OF THE U.S. PATENT AND TRADEMARK OFFICE**

Mail Stop Petition  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Applicant respectfully petitions the Director of the U.S. Patent and Trademark Office to have withdrawn the restriction and withdrawal from examination of claims 18 - 30 in this application as expressed on page 3, paragraph 1 in the Official Action dated June 27, 2007. Applicant further petitions respectfully for the withdrawal of the requirement to cancel claims 18 - 30 as expressed on page 3, paragraph 2 of the June 27, 2007 Official Action. Lastly, applicant petitions for withdrawal of the making "final" the rejection of claims 1 - 8, 10 - 13 and 15 - 17 in the June 27, 2007 Official Action. In applicant's Response to Official Action dated August 27, 2007, applicant requested reconsideration of the restriction and withdrawal from examination and of the final status of the June 27, 2007 Official Action. The requests were denied by the examiner in an Advisory Action dated September 25, 2007. .

### **Withdrawal of Final Rejection**

Final rejection of claims in this application in the June 27, 2007 Official Action is improper and should be withdrawn applicant respectfully urges. The June 27, 2007 Official Action rejects claims 1 - 8, 10 - 13 and 15 - 17 on grounds different from those upon which these claims were rejected in the Official Action of October 24, 2006.

Applicant responded on April 19, 2007 to the rejection of claims expressed in the October 24, 2006 Official Action as anticipated by the U.S. patent No. 5,757,627 of Faulk. Applicant's response indicated how the Faulk patent was not correctly interpreted and how it did not apply to the claims in the application.

In the June 27, 2007 Official Action the examiner explains that, by virtue of a "typo" error made by the examiner, the October 24, 2006 Official Action incorrectly expressed the manner in which the Faulk patent applied to the claims. The June 27, 2007 Official Action then changes what elements of the Faulk patent are now believed by the examiner to apply to the provisions of the claims and rejects the claims on these new grounds. Nothing in applicant's response to the October 24, 2006 Official Action is said to have resulted in the new grounds for rejection and, indeed, nothing in applicant's April 19, 2007 response is responsible for the changed grounds for rejection. The examiner's original misstated rejection made it impossible for applicant to respond to the rejection as the examiner now contends it should be corrected.

Applicant was not given an opportunity to respond to a non-final application of the Faulk patent to the terms of the claims as now expressed in the June 27, 2007 "final" Official Action. Applicant's Response of August 27 discusses in detail the patentable distinctions of the finally rejected claims versus Faulk as newly applied. The examiner's Advisory Action of September 25, 2007 does not respond. It is requested that the "final" status of the Official Action is improper and should be withdrawn.

### **The Restriction and Withdrawal from Examination**

Paragraph 1 of the Official Action states in conclusory fashion:

Newly submitted claims 18 - 30 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: use of magnetic storage and synchronous rectifier.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 18 - 30 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

The examiner has made no comparison of the subject matter of the claims that are said to be to separate or distinct invention. There is no factual basis given for a holding that claims 18 - 30, presented in applicant's April 19, 2007 response are to an invention either "independent" or "distinct" from the invention of the originally presented claims 1 - 8, 10 - 13 and 15 - 17. Rather, as set out more fully below claims 18 - 26, 29 and 30 do not claim an invention independent or distinct, but are only differently worded claims to the invention claimed in the originally presented claims. Claims 27 and 28, on the other hand, are each dependent from one of the originally presented claims, merely more narrowly defining the invention as claimed in their originally presented parent claims. For the Director's convenience, a copy of the pending claims is attached.

#### **Claims 18 - 26, 29 and 30**

Claims 18 to 26, 29 and 30 were presented in the Response to Official Action filed on April 19, 2007. As pointed out there these claims are like, but not identical to, claims indicated as containing allowable subject matter in applicant's underlying PCT application.

Comparing the invention claimed in the newly presented independent apparatus claim 18 to the invention claimed in the original claims in this application, claim 18 (and dependent claims 19 - 23 and 29) is directed to "a power converter for supplying an output power to a load" as are originally presented claims 1 - 8 and 10 - 13. Claim 18 calls for "a magnetic storage element" whereas the originally presented claim 3 calls more narrowly for "an inductor." Original claim 4 calls more narrowly still for a "transformer." It is clear from applicant's specification that the claim 3 "inductor" or the claim 4 "transformer" is only, in a more specifically claimed embodiment, the broader magnetic "storage element" of claim 18. See applicant's specification at page 2, lines 19 - 22. There it is said, "A switched-mode converter includes a magnetic storage element, which may be an inductor, and frequently is a transformer for electrically isolating input from output."

Claim 18 calls for "a switch on a primary side of the magnetic storage element." The originally presented claims do not spell out a switch on the primary side. However, such a

switch is not an inventive feature in a power converter as switching DC input power in converters such as DC-DC converters is very old and very well known in the art. Referring to what has been conventional in the art prior to the application's filing, applicant points out at page 1, lines 15 - 17, in Background, "A switched-mode power converter includes at least one primary switch that is used to switch a direct current input on and off to produce a time-varying voltage and current." Put another way, if the primary switch were claimed in claim 1 or a claim dependent from claim 1, that would not make the claim a claim to an independent or distinct invention as the improvement being claimed is in the control of the switching element or synchronous rectifier of the secondary. Likewise cancellation of the "switch on the primary side" from claim 18 would not make that claim a claim to an independent or distinct invention. However, applicant would make this cancellation if that is the basis for the restriction and cancellation requirement as applied to claims 18 - 23.

In every other way claim 18 and original apparatus claims 1 - 8 and 10 - 13 are clearly directed to the same invention. Claim 18 calls for:

A synchronous rectifier on a secondary side of the magnetic storage element having a switching input, a switching output and a control input for enabling or disabling said synchronous rectifier from conducting current from said switching input to said switching output.

Compare claim 1 which calls for:

A switching device having a switching input, a switching output, and a control input for enabling or disabling said switching device from conducting current from said switching input to said switching output.

The remainder of the newly presented claim 18 and original claim 1 setting out the inventive controlling of the "synchronous rectifier" or "switching device" are virtually identical.

As for the newly presented method claims 24 - 26 and the originally presented method claims 15 - 17, a similar comparison shows that both sets of claims relate to the same invention. In regard to the input of the converter newly presented claim 24 and original claim 15 are closer than the apparatus claims. Claim 24 calls for "providing a power input portion comprising a switch" which corresponds to, but is narrower than, the claim 15 provision "providing a power input portion."

Original claims 15 - 17 do not explicitly call for a magnetic storage element, an inductor or a transformer. Newly presented claim 24 is more specific and does call for "providing a

magnetic storage element." This does not result in claim 24 claiming an independent or distinct invention, however. Claim 24 is only more specific in this respect. Like the switch in the primary circuit referred to above, the magnetic storage element, inductor or transformer is commonplace in power converters and does not bear on whether or not distinctly different or independent inventions are claimed. Again an amendment to either claim 15 or a dependent claim from claim 15 calling for the magnetic storage element that is commonplace would not result in the claiming of a separate independent or distinct invention. If such an amendment had been made, or such a dependent claim had been presented, no similar restriction requirement would have occurred. That would be viewed only as a narrowing amendment or presentation of a somewhat more explicit dependent claim.

### **Claims 27 and 28**

As pointed out above claims 27 and 28 are dependent claims whose parent claims, claims 1 and 15, are among the originally presented and examined claims. These claims only further define the operation of the inventive apparatus and method of claims 1 and 15. They are certainly not drawn to separate and distinct inventions but are only narrower dependent claims drawn to the same invention.

Nowhere in the June 27, 2007 "final" Official Action or the September 25, 2007 Advisory Action is there any discussion of how these two dependent claims can be to inventions independent and distinct from their parent claims.

### **The Requirement for Cancellation of Claims 18 - 30**

Paragraph 2 of the June 27, 2007 Official Action states:

This application contains claims 18 - 30 drawn to an invention nonelected by original presentation. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

For the reason that claims 18 - 30 are not directed to an independent or distinct invention, this requirement should now be withdrawn. As for the cancellation of the claims, neither 37 CFR 1.144 nor MPEP § 821.01 require that. To the contrary MPEP § 821.01 provides that the examiner may cancel non-elected claims by examiner's amendment at the appropriate time. These claims should not be cancelled, but should be examined at this time.

## Conclusion

It is respectfully requested that final status of the rejection of June 27, 2007 be overturned, that the restriction be overturned and claims 18 - 30 be examined in this application, and that the requirement for cancellation of claims 18 - 30 be overturned.

The extended six month period for response to the Official Action of June 27, 2007 expires December 27, 2007. Authorization is given to charge the deposit account number 070135 of attorneys for applicant for the extension to December 27, 2007 and for the Petition Fee due upon the filing of this Petition. A duplicate copy of this page is enclosed.

On or before December 27, 2007, applicant will file a Notice of Appeal. It is requested that this Petition be decided before expiration of the two month period for filing an Appeal Brief or that the Rules be suspended to enable this Petition's consideration before an appeal brief is required.

Respectfully submitted,

GALLAGHER & KENNEDY, P.A.



Date: December 20, 2007

By: Thomas D. MacBlain  
Reg. No. 24,583  
Attorneys for Applicant

Gallagher & Kennedy, P.A.  
2575 East Camelback Road  
Phoenix, AZ 85016  
(602) 530-8088 phone  
(602) 539-8500 fax  
[tdm@gknet.com](mailto:tdm@gknet.com)